

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 22-25, 28-33, 35 and 37-43 are pending in the application, with 22, 28 and 37 being the independent claims. Claims 38-39, and 43 are sought to be cancelled without prejudice to or disclaimer of the subject matter therein. Support for recitation of "pulmonary tissue specific" in claim 37 can be found on page 16, line 21 of the specification. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Objection to the Oath

The Examiner previously objected to the declaration because it omitted the citizenship of Dr. Bloch. Applicants will submit a new declaration from Dr. Bloch which indicates his citizenship as soon as it is received from the inventor.

Rejections under 35 U.S.C. § 112

The examiner has rejected claims 40-41 under 35 U.S.C. § 112, first paragraph (Paper No.25, pg. 3), on the grounds that the application allegedly does not enable the

full scope of the claims. Applicants respectfully traverse this ground for rejection. In summary, the Examiner states that:

Claims 40-41 recite methods of inducing pulmonary vasodilation comprising: administering to a mammal a composition comprising a nucleic acid encoding nitric oxide synthase and an effective amount of an Immunosuppressive agent of phosphodiesterase inhibitor. The specification, while being enabling for methods of inducing vasodilation in a mammal comprising: introducing into the lungs of a mammalian patient in need of pulmonary vasodilation an aerosolized adenoviral vector comprising a nitric oxide synthase gene operably linked to expression control elements, wherein the introduction of said gene into the lungs of said patient results in pulmonary vasodilation that does not significantly affect systemic blood pressure or cardiac index, does not reasonably provide enablement for a method of introducing pulmonary vasodilation in all mammals comprising introducing by any route of delivery an adenoviral vector encoding nitric oxide synthase gene in combination with any immunosuppressive agent or any phosphodiesterase inhibitor. (Paper No. 25, pg.3)

Applicants disagree. Solely in an effort to expedite prosecution, however, and without acquiescing in the propriety of the rejection, Applicants have amended claim 40 to specify "A method of inducing pulmonary vasodilation comprising administering, by aerosol administration," Claim 41 is dependent upon claim 40 and therefore the rejection of claim 41 is moot. Thus, Applicants respectfully request that the Examiner reconsider and withdraw the rejections.

Rejections under 35 U.S.C. § 102

In the same office action mailed December 12, 2001, the Examiner rejected claims 37-39 and 43 under 35 U.S.C. § 102(e) as allegedly being anticipated under U.S. Patent No. 5,880,102, hereinafter "George". Applicants have cancelled claims 38, 39, and 43 without prejudice or disclaimer. Therefore, the rejection as it pertains to claims 38, 39 and 43 is now moot.

Applicants respectfully disagree with the Examiner's argument that claim 37 is anticipated by George. The Examiner mentions that "George et al. teaches recombinant adenoviral vectors encoding a NOS isoform operatively linked to a CMV promoter." (Paper No. 25, pg. 10). Claim 37 recites the use of a pulmonary tissue specific expression element, in place of a CMV promoter, which was not taught by George. Therefore the rejection of claim 37 is overcome and should be withdrawn.

Objections under 37 CFR 1.75(c)

The examiner has objected to claims 25 and 33 "as being of improper dependent form for failing to further limit the subject matter of claims 22 and 28 respectively." (Paper No. 25, pg. 6). Applicants respectfully traverse this ground of objection and wish to indicate that claims 25 and 33 refer to a method of inducing pulmonary vasodilation and treating pulmonary hypertension via **transduction** of the endothelial nitric oxide synthase gene into the lungs of a human. Claims 22 and 28 are methods of inducing pulmonary vasodilation and treating pulmonary hypertension respectively, via **introduction** of a nitric oxide synthase gene into the lungs of a mammal. "Introduction" of a gene represents subject matter that includes but is not limited to "transduction" of the gene. Therefore, Applicants have used appropriate claim language in claims 25 and 33. Thus, the rejection is overcome and should be withdrawn.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (202) 371-2589.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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Version with markings to show changes made

Claims 37 and 40 have been amended as follows:

37. (Amended twice) A pharmaceutical composition suitable for aerosol delivery comprising a nucleic acid encoding a nitric oxide synthase gene operably linked to a[n] pulmonary tissue specific expression control element, an adenoviral vector and a pharmaceutically acceptable carrier vehicle [; wherein said expression control element selectively expresses said nucleic acid encoding a nitric oxide synthase in pulmonary tissue].

40. (Amended twice) A method of inducing pulmonary vasodilation comprising: administering, by aerosol administration, to a mammal in need of pulmonary vasodilation an effective amount of the pharmaceutical composition of claim 37; and an effective amount of at least one drug selected from the group consisting of an immunosuppressive agent and a phosphodiesterase inhibitor; wherein inducing said pulmonary vasodilation does not significantly affect systemic blood pressure or cardiac index.

Claims 38-39, and 43 have been cancelled.